AMERICAN FARMER.

RURAL ECONOMY, INTERNAL IMPROVEMENTS, PRICE CURRENT.

" *O fortunatos nimium sua si bona norint*
" *Agricolas.*" . . . . . VIRG.

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VIRGINIA HUSBANDRY.

Wier's Cave.

On reading the subjoined description of one of the most stupendous natural curiosities to be found in this or any other country—though it may afford some amusement, the question will still recur—what is the connexion between the *Caves* & the *Agriculture* of Virginia?—very true! It would require a lively imagination to discern the connexion, but then I have adopted a certain *heading* for the desultory observations I had to make on what particularly attracted my notice in passing through an interesting portion of the State, at a pace, and in a state of health that did not admit of diffuse inquiry and methodical reflection—and so I make my heading like the bed of Procrustes, unalterable in figure or dimensions, and every subject must be made to *fit it.*

The passing traveller, on the road to Staunton, would be unfortunate, if he were not reminded that it brings him in the vicinity of Wier's Cave, where

" Rocks reared on rocks in huge disjointed piles,
" Form the tall turrets and the lengthened ailes;
" Broad ponderous piers sustain the roof, and wide,
" Branch the vast rain-bow ribs from side to side.
" While from above descends in milky streams,
" One scanty pencil of illusive beams,
" Suspended crags and gaping gulphs illumes,
" And gilds the horrors of the deepened glooms."

From the house of Mr. J***** W*******, where I rested some days and was recruited by the kindest and most grateful attentions, I went to explore this wonderful Cavern—for since the discovery of Wier's—Madison's cave has fallen into comparative insignificance. I find no necessity to describe it since it has been by a much abler pen, so happily done, in the following account, by an eminent citizen of North Carolina.

Edit. Am. Farmer.

WIER'S CAVE.

*Description of Wier's Cave, in Augusta County, Virginia, in a letter from General CALVIN JONES to Mr. ******, in North Carolina—communicated to the Editor of the Raleigh (North Carolina) Star.*

Botetourt County, (Va.) March 17, 1815.

MY DEAR SIR,

Detained here (for this day at least) by a rain, I will occupy a part of the leisure it allows by an endeavour to make you participate in some degree in the pleasures my tour has afforded me; and as I know the interest you take in the rude but bold workmanship of nature, I will give you an account, though a brief and imperfect one, of a place very little known, where she has made some of her happiest efforts.

Since my last from Winchester, I have visited the Caves in Augusta, and the Natural bridge in the county to which it has given name. The former exceeded, but the latter did not equal my expectations. I saw the Bridge, I presume, under circumstances that were not favourable to the emotions of the sublime. I had a little before seen the grand, romantic scenery at, and around Harper's Ferry, where the Potomac passes through the blue Ridge—I had just beheld the wonderous subterranean palaces in Augusta: every step, as I advanced up the rich and beautiful valley of Shenandoah, bounded on one side by the Blue Ridge, and on the other by the North Mountains, presented objects calculated to keep the sublime emotions in a constant state of excitement. Besides my expectations concerning the bridge, were too highly raised by Mr. Jefferson's splendid and fanciful description of it. When I saw it I felt disappointed. I walked to the edge and looked down without feeling terror. I went below and looked up, and was not astonished. It indeed possesses grandeur and sublimity; but to my mind, *Wier's Cave* is best worth the attention of the traveller. There every thing that the mind can conceive of the grand and beautiful is realized. The Bridge affords only two or three views—the Cave a thousand.

In my progress up the valley I was attracted to Madison's Cave by Mr Jefferson's description of it, but had much difficulty in obtaining directions where to find it, other than those contained in the Notes. Maps of Virginia I could no where meet with, though I made diligent inquiry, except the old one of Fry and Jaffreys, which I saw at Travel's in Woodstock; so that it was not until I had arrived within 20 miles of the Cave I could ascertain its place, and there I learned for the first time that another *Cave* had recently been discovered near it, and so far surpassing it in extent and grandeur, that Madison's had ceased to be an object of curiosity.

I found the Caves to be in the N. E. corner of Augusta county, very near the Rockingham line, two miles from Port Republic, a little town at the confluence of the two branches of the Shenandoah,* a little out of the direct route from New Market to Staunton, thirty miles from the former, and seventeen from the latter place, increasing the distance between them three or four miles, but more than compensating the traveller (putting other considerations out of the question) at this season of the year, by the superior quality of the road.—This place may be visited from Charlottville on the other side of the Blue Ridge, 32 miles distant, by a turnpike road through Brown's gap. To Richmond is 120 miles. I expect you would prefer the route to Brown's gap, as Monticello would then be in your way

* Pronounced with a full accent on the first and last syllables, " Shannondore."

The hill in which the caves are, presents a perpendicular front of 200 feet in height to the south branch of the Shenandoah, looking northeasterly towards the Blue Mountains, three miles distant beyond the river. Its front on the river is about half a mile, but spreading wider as it recedes—its height declines gradually back until it dissolves into the plain. Of Madison's Cave I shall say but little, Mr. Jefferson's description of it being ample. It derives its name from the father of the late Bishop Madison, who resided near it; and who, when alive, was equally famed for his hospitality, his practical wit, (which lay more in his heels and fingers than in his head) and his convivial disposition. It has been known 60 or 70 years, but is now little visited as a curiosity, The earth in it affords Salt-Petre in the proportion of from two to four lbs. to the bushel; 2000 weight was manufactured here during the last two years. The earth when brought out is, at the mouth of the Cave, put into a plank gutter which conducts it to the bank of the river at the bottom of the hill, where it is put into the tubs or vats mixed with wood ashes; water is passed through it, and this is evaporated to a salt by boiling. The lakes of water which are found at the extremity of the Cave have been navigated by a boat, and thouroughly explored since Mr. Jefferson wrote. They are 30 or 40 feet deep, and bounded on the furthest extremity by rocks so abrupt, that a footing can no where be had, limiting for the present further discoveries in that direction. I advised the proprietor to put fish into them, which he promised to do, so that visitants may probably in a few years add fishing to the entertainments afforded by the excursion.

Madison's Cave, as you know from Mr. Jefferson's description, has its entrance about two thirds of the way to the top of the hill, immediately over the river. The mouth of *Wier's Cave* is parallel to it in the same hill, two or three hundred yards further up the river. Madison's Cave penetrates 120 yards; Wier's 900. This last was discovered in February, 1806, by the man whose name it bears, and this I propose to give you some faint idea of by a description brief, and necessarily very imperfect But to obviate its imperfections and aid your comprehension, I herewith give you the outlines of its course and apartments, incorrect no doubt, but, bearing some resemblance to what it would represent, and the best I am able to offer. The letters in the plan will be referred to in the course of our route. The index points to the entrance: the arrows mark the descent in places where it is most considerable.

The Cave is solid limestone, sometimes ascending, but more commonly descending in its course, narrow and low at the entrance, but increasing in height as you advance, until it becomes 80 or 90 feet high. Water is constantly dropping from the arch and trickling down the sides, not in quantities sufficient to affect the lights or incommode the visitors. This forms stalactites of every possible form and every variety of beauty. The colours are for the most part white, but sometimes red, and occasionally variegated. It is not every where that stone is formed by this percolation of the water Sometimes it finds little basons formed to receive it, and again there are sinks through which it falls and disappears.

The entrance is closed by a door of two feet and a half or three feet square. You grope through a narrow passage until you reach the Anti-Chamber, (A) whose arch 12 or 15 feet high, is supported by pillars in the centre. On the left is a recess difficult to traverse on account of the huge mishappen rocks which are every where thrown rudely about it From the Anti-Chamber you enter a narrow passage, creep in one

place and incline your body obliquely to the left between two sheets of rock in another. Descending some hewn steps and a wooden ladder, you come into Solomon's Temple (B)—on the left is a large fluted column called Solomon's Pillar, and on the sides of the apartment are curtains descending in wave-like folds from the ceiling to the floor. The room is 25 feet high. A recess on the left contains a fine basin of water, and is called the Bar Room. Ascending a ladder you find yourself on a steep narrow rock, from which you look back and see the various beauties of the Temple to great advantage. By another ladder you descend into the Curtain Room, (C) which is profusely ornamented with a great variety of beautiful drapery. There is such elegance and regularity in these ornaments that, if seen in small detached parts, it would be difficult to persuade one that they were not works of art. The curtains usually descend from the arch to the floor on the sides of the Cave, and are from 5 to 6 feet wide, and from 2 inches to half an inch in thickness. They hang from six to twelve inches asunder, and are commonly white and transparent. As the drapery in this apartment is the most remarkable, though it is found in every part of the Cavern, it may be well now, once for all, to take a passing notice of two forms that most frequently occur in every part of the Cavern. The explorer will see the best examples of each in the Sofa and Gallery, presently to be mentioned. At the upper edge of the valance where the depending part commences, there is a cordon running round each.—From this the curtain descends a foot or two, solid, but in the one indented by semi-circular cavities about two inches in cord, parallel and exactly uniform—in the other, instead of cavities there is precisely as much projection, and the proportions in both are as regular and exact, as if they had been produced by the chissel of the artist.

The Tambourin or Music Room (D) is next. This abounds with stalactites similar to the curtains in the preceding rooms, but finer and more variously toned, and the room is better calculated for effect. These tones (produced by stricking) are various and good, and were the notes ascertained, which each would produce, a skilful hand could draw music from them. You now ascend a natural and well formed staircase running across the passage with a row of bannisters along it, of a proper height for the hand to rest on—and then descending a ladder into the Ball Room, (E) which is 100 feet long, and the arch 15 to 20 feet high. The floor is smooth and level, and the sides ornamented with curtains, colonnades, and various resemblances to household furniture. Betsy's Sofa is remarkable here for its elegance and resemblance to art. The floor has evidently been lowered in time. Some of the columns are ruptured and dissevered in the middle of the shaft, and do not meet by some inches. Others have fallen and lie in ruins.

The curious explorer now comes to the most straitened passage in the Cavern, (F) and which was for some time the boundary of the discoveries in it. The way, though enlarged beyond its original dimensions, is steep, narrow, and difficult. He must creep on all-fours, and on account of its descent must go backwards. He is covered with mud, fatigued with his posture and exertions, and it is well if his head and back escape a rude contact with the rough stones above him. At length he regains his feet—looks back upon the narrow aperture by which he entered, reflects that he is almost a quarter of a mile from the regions of upper air, carries his candle with more steady hand, and feels himself entombed. Knowing that our corpulent acquaintance Mrs T ——, had visited this Cavern, I asked my guide if she passed these straits. He assured me that she did, "that she crept, and stumbled, and slid along like an otter, and got through without any sort of difficulty and what was more," he added, "no woman ever yet stopped half way; they always went to the extremity."

Descending some steps hewn out of the rock, called Jacob's Ladder, you enter the Vestibule, (G) the arch of which is about the same height as that of the Temple. On your left as you enter, a horizontal sheet of stone, a foot thick and 20 feet in a diameter, projects from the side of the Cave about midway between the floor and the ceiling called Mary's Gallery. This is a striking object from its rich ornaments. Connected with this Vestibule is the Saloon (H). Returning and entering a passage on the left, Washington's Hall, (I) the grandest part of the Cavern is open to your view. You stand at the entrance; the guides go forward and arrange lights at certain distances. The long level floor rings beneath their tread. You see them at a hundred paces distance and hear their voices resounding from the arch that rises sublimely eighty feet over your head. Every drop of water that falls rings in your ears. On your right is a row of marble statues. In the centre, before the entrance of Lady Washington's Drawing Room, is a statue of noble mein and fair proportions, in the habiliments of an ancient Roman, called Washington's. You gaze and listen in silent rapture. At length you are roused from the enchantments of the scene by being reminded by your guides, that you have still much to see.—Lady Washington's Drawing Room, (K) is next visited; a spacious and handsome apartment. Just within the room on the right, is a large Bureau on which many names are inscribed. I conformed to the general custom by engraving the initial letters, of one I happened then to think of. In this apartment a rock of immense magnitude has fallen from the arched ceiling above, and converted into a heap of ruins a number of massive columns that were standing near it. In Washington's Hall, a column two feet in diameter has fallen, probably from the settling of the floor, which certainly has a Cavern beneath it. The Diamond Room, (L) is next and derives its name from the sparkling brilliancy of its walls. The Enchanted Room, (M) has a wild variety, which, by the help of a vivid imagination, may be transformed into a new creation. Here, in one place, an immense mass of rock hangs so loosely over you, so apparently without support, that it seems to threaten you with instant annihilation. Here is a basin containing a hogshead or two of pure water, which, after the fatigue experienced, is grateful and refreshing. Returning by the same passsage through the Diamond Room, you come to the Wilderness, (N) rough and irregular below, on the sides and above. Either here or in the Enchanted Room, I do not remember which, there is a large column of 25 or 30 feet in diameter, called the Tower of Babel. The Garden of Eden, (O) is the last scene. This room is spacious, lofty, and its decorations are superb and various. A rock apparently floating over you, called Elijah's Mantle, a large white curtain, and a rock called the Salt Mountain, seen at a distance through a colonnade, are the most remarkable particulars that I noticed here.

I now returned and regained the mouth of the Cave, after having been within it two hours and three quarters. But the time was too short to enable one on a first visit to notice the Cave with the accuracy necessary to give a full or correct description of it. An English painter who was some weeks here, said that years were necessary to give any thing like a correct representation of it by the pencil.

The Saloon (H) cannot be very distant from Madison's Cave, and had time permitted, I should have attempted to discover a communication between them, by firing a musket in one Cave, while the report was listened for in the other.—The mention of this reminds me of the remarkable effect which I am told the explosion of a pistol produces in some parts of Wier's Cave.—The sound is astonishingly loud, and is prolonged and echoed back from the distant recesses; and after a considerable silence it is once and again returned, when you have supposed it exhausted.—I had not the forethought to supply myself with the means of making this experiment.

The temperature of this Cave, I am told, is *55*, and never varies.

A German of the name of Aymand, was once the proprietor of this Cave, and his name has sometimes been given to it. It is now the property of Mr. Bingham, who keeps a good house of entertainment near it; but the honour of the name is certainly due to the discoverer. Mr. Wier made the discovery by pursuing with a dog, game which took refuge here, and he prosecuted it with as much ardour, and at almost as much peril as Cook prosecuted his discoveries in the trackless ocean. The proprietor keeps a lock upon the door of the Cave, and charges 50 cents to each visitor, which produces him a considerable revenue.

Mr. Charles Lewis, who lives near Port Republic, accompanied me in my subterranean excursion, and contributed much to the gratification of it.

In following me, I fear you will share more of the fatigues than pleasures; but if I excite your curiosity sufficiently to induce you to make this place a visit, at some time when on your way to Washington, I shall have done you an essential service by enabling you to see and enjoy much in a little space, an important consideration in the enconomy of a life whose duration is contracted to a span.

I am, my dear sir, with every sentiment of respect and esteem, yours, as ever,

CALVIN JONES.

AGRICULTURE.

THIRD ANNIVERSARY OF THE *ALBANY COUNTY* Agricultural Society.

TUESDAY, October 9, 1821.

In publishing their third annual report, the Executive Committee have much pleasure in being enabled to congratulate their fellow citizens on an increased attention of the members of the society to the objects of its institution, and on the success which has crowned their efforts since the last anniversary. The reports of the several committees, as well as their own observation, warrant them in ascribing to the Agricultural Society a very salutary influence on the farming interests of the county. The exhibition of animals, in number, variety and quality, exceeded that of any former year; and the specimens of household manufactures were many of them excellent—evincing an improvement in that branch of domestic economy, which may ere long supercede the necessity of resorting to foreign markets, even for our finest fabrics. Among the articles exhibited was a lady's bonnet, made of a species of grass common in this country, in imitation of the imported Leghorns, and not inferior to them in beauty or durability. The fair artist who produced this ingenious specimen of workmanship, is Miss Eliza W. Patterson, of Greenbush. Her residence being out of this county, the committee were precluded from the pleasure of awarding to her the premium which her industry and ingenuity merited. The ploughing match was unusually well supported. Thirteen teams started for the prize, and the contest was sustained with a steady firmness, which did great credit to the ploughmen.* It is difficult to imagine a scene more interesting. The novelty of the spectacle and the fineness of the weather, had drawn together a vast collection of spectators, who testified their approbation by repeated cheerings, and appeared highly gratified with the appearances of the day.

WEDNESDAY, October 10.

The members of the society assembled at Skinner's Mansion House, and after having elected their officers for the ensuing year, marched in procession to the Lancaster School House, preceded by a cart drawn by six oxen, decorated with the flags of the society, and literally loaded with specimens of household manufactures and the choicest productions of the earth; bearing also a stand, which displayed to great advantage the plate intended for premiums. Having, with much difficulty, on account of the press of people, obtained an entrance into the school room, and order being restored, the Rev. Dr. Chester addressed the

* The Executive Committee recommended to the ploughmen, in future, to dress in white rifle frocks and trowsers; as, in their opinion, uniformity in dress would add much to their good appearance.

Throne of Grace in an appropriate, fervent and eloquent prayer: after which, the annual address was delivered by JESSE BUEL, Esq. The Executive Committee forbear to speak of the merits of this address, as they have obtained the author's permission to make it a part of their report. The Hon. Stephen Van Rensselaer, president of the society, now proceeded to read the reports of the several committees, and award the premiums; which being concluded, the members of the society returned to the Mansion House, and partook of a farmer's dinner, prepared by Mr. Skinner in his neat and bountiful style. Harmony and good feeling pervaded the transactions of both days, and the society dispersed highly gratified, and under a full conviction of the beneficial results to the community derived from their united exertions.

Officers elected for the ensuing year—viz:

Stephen Van Rensselaer, President;
John Schuyler, jr. First Vice-President;
John Beekman, jr. Second Vice-President;
Joseph Alexander, Secretary;
Douw Fonda, Treasurer.

Executive Committee.

Solomon Van Rensselaer, Jesse Buel, John Townsend, Tunis Von Vechten, Thomas Hillhouse.

Viewing Committee.

Jeremiah Schuyler, Watervliet; Jesse Tyler, Bern; Daniel Conklin, Rensselearville; Matthew Bullock, Bethlehem; Richard Van Kleeck, Guilderland; Jas. Blodget, Coeymans; Timothy Lake, Westerlo; Stephen Van Rensselaer, jr. Albany.

Committee on Animals.

Neat Cattle.—Christopher Dunn, Volkert D. Oothoudt, John Gibbons.

Horses.—Peter Van Antwerp, Edward Haswell, Daniel Crary.

Sheep and Swine.—Aaron A. Moore, Frederick Palmer, Joseph Wayne.

Committee on Manufactures.

Isaiah Townsend, William James, Benjamin Knower.

Committee on Agriculture.

Jacob Ten Eyck, Gerret H. Lansing, William M'Kown.

TOWN COMMITTEES.

Watervliet.—Robert Dunbar, jr. Michael Freleigh, Bratus Bigelow.

Guilderland—Jonathan Brown, Cornelius H. Waldron, Cornelius Wormer

Bern.—Josiah B. Pinkney, Erastus Williams, Gideon Taber.

Rensselearville.—Ephraim Crocker, Henry Spaun, John Linnen.

Westerlo.—James Holmes, Sylvester Ford, Thomas Myers.

Bethlehem.—David Sager, Aaron Fuller, William Sager, George Kirkpard, Robert Hall, jr. William Warren, Benjamin Van Zandt, Peter B. Winne, Jehoiakim Veeder, John W. M'Dougall.

Coeymans.—Barent Ten Eyck, Andrew Witbeck, John W. Huyck.

Albany—William Chapman, Francis Bloodgood, Volkert P. Douw.

ADDRESS.

GENTLEMEN OF THE SOCIETY:

I feel a peculiar delicacy, young as I am known to be in the practice of farming, in addressing you on a subject which most of you have made the study and business of your lives. I wish the task had been placed in abler hands; but the Executive Committee having thought proper to assign it to me, I accepted it under a confident hope, that the errors and imperfections which may be disclosed in the discharge of this duty, will be kindly overlooked by this assembly,—and that my *intentions*, at least, will be favourably appreciated. The ardor with which novices generally enter upon a new business, may have generated in my mind opinions and maxims, in relation to husbandry, which cannot bear the test of experience; but I will endeavor to avoid the detail of mere *speculative* opinions, and to confine my remarks to such facts as have been fairly verified by practice.

This society was established for the purpose of bettering the condition of agriculture, and of improving our household manufactures,—by rendering the skill, the experience and improvements of all, subservient to the interests of each individual member; of rendering labor more productive—our farmers more intelligent and wealthy—and of multiplying among us, those social, civil and domestic comforts, which give to society its best polish, and to life its purest enjoyments. In other words, the object of its institution was, as I think its tendency hitherto has been, to fit and qualify our yeomanry for the high and important moral and political duties which devolve upon them, as members of our republic. The farmers of our country constitute nine tenths of its population. They are emphatically the source of national wealth—our sword of defence against invasion from abroad,—our shield of protection from the attacks of domestic foes, and the guardians of our inestimable institutions of government. How important is it, then, that *they* should possess that high minded and fearless independence, with which competence and intelligence are calculated to inspire a free and virtuous people.

The desirable work of improvement is progressing in our county; and it will continue to progress, so long as this society retains the countenance of its distinguished head and patron, and the support of the respectable body of gentlemen who now constitute its members. Nay, if this society should become extinct from the present day, the stimulus which it has already given to genius and to enterprize, will continue to display its benign effects for years to come. The seed of improvement has been sown, and it has germinated: under the blessing of Providence, the plant will grow, expand and mature; and so expansive will be its branches, that even the husbandman who has refused to nurture it, shall repose in its shade, and participate in its fruits.

I repeat, the work of improvement is progressing among us. Has not a laudable ambition to acquire useful knowledge, and to excel in husbandry, been manifested in all our towns? Has not a new spring been given to industry? Have not choice breeds of stock, valuable seeds, and improved implements of husbandry, acquired new value, and been sought for and purchased by many who before did not appreciate their advantages? Have not our household manufactures been greatly improved in quality, and increased in quantity? I appeal to the gentlemen who compose your Viewing Committee, and who have lately made the tour of the county, if these questions do not deserve an affirmative answer. I appeal, for a corroboration, to the reports of the several committees, which are about to be read to you, and which will evince a productiveness of soil, and an improvement in tillage, exceeding any thing before known in this county, and, if I am correctly informed, in some instances surpassing the products of any of our sister counties. I ask you individually, gentlemen, if every town, if every neighbourhood, has not undergone a more than ordinary change for the better, within the last three years? And however wedded some of our citizens may be to the practice and system of their fathers, we have a flattering testimony that many, very many, have the courage and the wisdom to profit by the improvements which science and skill are every where introducing, and which distinguish the present as a fortunate, as well as an important era in the history of the rural arts.

If proof is wanted, of the utility of institutions like ours, beyond what our experience affords, we have it of an incontestible character, in the history of similar societies. The first of the kind in our country, was established about the year 1794, in the county of Philadelphia. Its salutary influence has been demonstrated by the high state of cultivation which has been attained in that and the neighbouring counties, and which is not surpassed, for neatness and profit, in any section of the union. I believe I am correct in saying, that the products of the lands within the sphere of its influence, have trebled since its institution. The memoirs of that society, now published in four volumes, comprize an invaluable fund of practical information, from many of the best farmers in America, and embrace, among the contributors to this fund, the venerated name of Washington. The neighbouring county of Berkshire, in Massachusetts, offers another forcible evidence of the utility of agricultural societies, in advancing the wealth, and promoting the happiness, of a community. If we look to Europe, the testimonies in their favor, are no less unequivocal. Within the last fifty years, the agricultural produce of England, we are told, has doubled, and that of Scotland quadrupled, in consequence, principally, of the establishment of a board of agriculture, and of agricultural societies.

The expiration of the term of subscription to the funds of our society, will be my apology for these preliminary remarks; and the considerations which I have suggested, will have some influence, I trust, in perpetuating the institution, and its consequent beneficial effects upon the wealth and respectability of our county.

I shall now take the liberty, gentlemen, to point out some of the prominent errors in our husbandry, and to suggest such improvements, as merit the attention, and come within the means of men of ordinary enterprize and capital.

The careful preservation, and suitable application, of manures, form one of the best criterions of a good farmer. Without attention to these, in old cultivated districts like ours, lands must become impoverished, and tillage an unprofitable branch of husbandry. Manures are to the vegetable, what food is to the animal. We cannot render the animal fat, without an abundance of nutricious food; nor the vegetable luxuriant and productive, without the aid of manures. Manures contain the constituents of the new plant, and, as I before observed, are as necessary to its growth and perfection, as food is to the growth and health of the animal body. "Agriculture," says a late writer, "may be considered to be a system of operations, calculated to convert manure into vegetable matter." "We have seen," he continues, (alluding to his preceding remarks,) "that the land, or soil, performs the part of an instrument in the process; that all the care in its preparation is only directed to assist the action of the manure. That water is a mere medium for conveying it as nourishment to plants, and that heat facilitates their action upon it." And Professor Cooper, in tracing the analogies between animals and vegeteables, remarks, that "animal fibres are made from plants. So true is the scripture exclamation, that "all flesh is grass!" An ox and a sheep are made up of vegetables, and so are we who devour them. Nothing is nourishment to an animal but what was originally a vegetable. In like manner, nothing is nourishment to a vegetable but what was originally a vegetable." Again, he says—"In animals, appetite may be provoked, and digestion assisted, by the artificial stimuli of what physicians call condiments, salt, pepper, wine, acids, bitters, &c. Such also is the property of vegetables. Their hands, mouths and stomachs are in the soil; and by the application of artificial stimuli, such as lime, common salt, alkalies, plaster of Paris, &c. their roots may be excited to want, to take in, and to digest, more nutriment than they would otherwise take in."

The prevalent errors in the economy of manures, are—a want of properly constructed farm yards: a neglect to stable or yard stock during the winter months; and a culpable waste of straw, stalks and other vegetable litter. We seldom see among us yards so constructed as to retain the fluids which are produced in them, and which are known to possess the most fertilizing properties. On the contrary, cattle yards are often located with the apparent intention of being drained into an adjoining field, a neighbouring brook, or the highway; and we frequently see them destitute of any substantial and permanent inclosures. The practice of feeding cattle at stacks, remote from the farm yard, occasions a waste of food

der, a great loss of manure, and serious injury to grass grounds, which are poached by the cattle's hoofs. The waste of green and dry litter, is a still more serious injury to good husbandry. Straw, and stalks and husks of Indian corn are often fed in open fields, or suffered to waste in heaps, unprized and unregarded: while the practice is very general to permit weeds of all kinds, after the crop is harvested, to ripen and shed their seeds upon the fields, to the very serious injury of future crops; for these not only choke the young plants by their prolific growth, but rob them of a great portion of their nutriment.

To remedy these evils, and to render the barn yard what it ought to be, a source of fertility and profit to the farm, I would recommend, that the yard be excavated in the centre, to the depth of from three to four feet, according to its size, with a slope to the borders, which should be of an equal height all round, and sufficiently broad for the stock intended to be kept in it; and where the soil is not compact enough to retain moisture, that the bottom be properly bedded with clay, and covered with gravel or sand Six or eight inches of strong clay, beat down compact, will answer the purpose. The labor to effect this will be trifling, and can be performed by the ordinary hands and team on a farm. Here should be annually deposited, as they can be conveniently collected, the weeds, coarse grass and brake of the farm; and also so much of the pea straw, pumpkin vines and potatoe tops as cannot be ploughed under the soil in a succulent state. The quantity of these upon a farm exceeds belief, and are collected with little trouble, by the teams returning from the fields. And here also should be fed out, or spread as litter, the hay, husks and stalks of Indian corn, and straw, except what is profitably used in the stables. To still further augment the barn yard manures, the leached ashes should be added, and swamp earth may be, with manifest advantage. These materials will absorb the fluids of the yard, and, if carefully collected and deposited, double or treble the ordinary quantity of manure. The stock of the farm should be kept confined, except when let out for occasional exercise, or to obtain water, where this cannot be provided in the yard. Upon this management, from twelve to fifteen loads of unfermented manure may be obtained every spring for each animal wintered in the yard: and if the manure of the stable is mixed with it, as is proper it should be, the mass is proportionably increased. I have obtained in this way thirteen loads to each beast. Any excess of liquid that may remain in the yard, can be profitably applied to grass lands, or to growing crops. It is used extensively in Flanders, and in other parts of Europe.

In regard to the *application* of these manures, and the state in which they are most profitably applied, new principles have been disseminated, and satisfactorily tested, which are at variance with general practice. These teach—

That manures ought to be applied in an unfermented state;

That they should be ploughed under the surface as soon as practicable after they are taken from the yard; and,

That they should as seldom as possible be applied as a top dressing.

It has been ascertained by Davy, that animal manure loses sixty parts out of one hundred, when the process of fermentation is allowed to proceed uninterruptedly as far as it is capable. Mr. Coke, one of the first agriculturists in England, after a trial of seven years, expresses his entire conviction, that unfermented is as beneficial as fermented manure, load for load: and that by the use of the former, he gained one third in quantity.

Vegetables consist principally of gases, or aerial fluids, which are evolved, or disengaged, during the process of fermentation. If this process takes place under the surface of the soil, these gases are imbibed by the new plant, and constitute its natural food. If the fermentation takes place in the farm yard, or on the surface of the ground, these valuable properties are lost, in proportion to the extent of the process of decomposition. Mr. Pickering, whose science and practical knowledge in husbandry, qualify him to judge correctly on the subject, maintains, that yard manures cannot be ploughed under too deep, because its fertilizing properties, (the gases disengaged by fermentation) *rise* towards the surface; and for the reason, probably, also, that the roots of plants penetrate for food to the depth of ordinary ploughing. Mr Taylor, of Virginia, the author of a valuable treatise on agriculture, under the title of *Arator*,—a practical farmer, and a man of literature and science, carries the practice of converting vegetable matter into manure so far, as to bury, under high ridges, the branches of trees, and bushes, which are cut upon his farm. Upon these ridges, in subsequent years, he plants corn; and experience has demonstrated the utility of the practice. The same gentleman considers the stalks of Indian corn as one of the best materials for manure, both on account of their saccharine quality, and the long time they are decomposing in the ground.

All vegetables must undergo a complete decomposition, and become soluble, or dissolved, before they are food for plants. The nutriment they afford is then taken in by the roots and leaves. The durability of manures is co-extensive with the process of decomposition in the soil. Hence the firmer their texture, and the nearer they approach to woody fibre, the longer they are in rotting, and the longer they enrich the soil; and the more succulent and tender they are, the sooner they are decomposed, and exhausted of their fertilizing powers Decomposition is facilitated by heat and moisture, and by solvents, such as lime, &c. I have known a pile of yard manure almost ruined in three months, by being mixed with quick lime Corn stalks and cobs, and the straw of grain, impart fertility to the soil longer than a crop of green vegetables. Land manured with chips has become exceedingly productive after three or four years, and the fertility remained till the eleventh year. The fertility of new lands is owing entirely to the mass of vegetable matter accumulated upon their surface during the lapse of centuries; and these lands are impoverished in proportion as this mass becomes exhausted by tillage. It is much easier to keep them in good heart, by the timely application of manures, and the frequent alternation of grasses, than to restore fertility after it has been exhausted by injudicious cropping.

It is objected to long, or unfermented manures, that they are unsuitable for certain crops, such as flax, wheat, turnips, &c. Admit the objection to be a good one, does it follow, that under the new system they must be applied directly to these crops? By no means. Let the manure be applied to the preceding crop. I will illustrare my views, by detailing an experiment of my own. In May, 1820, I spread 140 loads of long manure, unfit, I will admit, for wheat, &c. upon four acres of clover ley, the soil a sandy loam, ploughed it under deep, and as moist as possible, rolled the ground, and planted it with corn With common culture, two acres of the field gave 180 bushels. The corn was harvested in September, and the ground immediately ploughed once, harrowed, and sown with wheat. The wheat yielded, by measurement, thirty-nine bushels, of sixty pounds, per acre. The stubble was once ploughed in July, and I have now growing upon the same ground a crop of white turnips, making the third crop the field has yielded in eighteen months. Now I am persuaded, the manure was more beneficial to the wheat crop, than it would have been, had it remained in the yard till September, agreeable to common practice, and about as beneficial to the turnips, as if it had fermented upon the surface until it became a complete powder, a process required by some to prepare manure for this species of crop. Thus I gained at least the entire use of the manure to my corn, beyond what it would have been worth by the ordinary practice, by applying it in an unfermented state. This experiment also demonstrates the bad policy of summer fallows, which would have given but one crop in the time I obtained three at about the same expense of tillage. As an improvement on summer fallows, let stiff grounds be ploughed late in the fall, and sands and loams in the spring, and a crop of peas, oats, corn or potatoes taken on the first furrow. The ground will then be in good preparation for a crop of wheat in September The ploughing should be well done, and the ground afterwards rolled; and if a dressing of long manure is given before ploughing, it will insure at least two good crops.

The barn yard should be thoroughly cleared in the spring, before fermentation has progressed far, and the manure covered in the field ere it is injured by the sun and winds. To do this to advantage, the manure should be spread no faster than it can be ploughed under. In this state it is used to the best advantage upon corn, oats and potatoes, and particularly under ridges for ruta baga, mangle wurtzel, cabbages, beets and vines. The advantages of planting these crops on ridges, are, first, that the whole manure is placed precisely where the roots penetrate for food; and second, it is covered with a deep tilth, which the vegetable requires for support and moisture. If buried six inches deep, and the ground afterwards rolled, I have experienced no inconvenience from the heat generated in fermentation, even in time of drought, and on dry porous soils. The seeds of grass and weeds, buried with the manure to this depth, seldom throw their shoots to the surface, or these come up so late as to be stunted by the already expanding crop, and are easily extirpated. For Indian corn, the manure ought to be spread before the last ploughing. It is thereby better distributed for the succeeding crop, and the roots of that plant, at the ordinary distance of planting, search under the whole surface for food. The manure from the horse stable is hotter, and ferments more rapidly, than that from the cattle yard. The best way is to mix, and apply the whole together. Where this is not done, the former should be applied to moist and cold soils, and the latter to lands which are warm and dry.

Under the management which I have suggested, in regard to yard manures, a farmer who winters twenty cattle, may annually make from 200 to 250 loads of manure,—which will give a good dressing to ten or twelve acres of land in each year. And if a proper rotation of crops is adopted, he will be able to keep in good heart with it, and progressively to improve, sixty acres of tillage land, so that each portion shall be manured once during a rotation of five or six years. The data I have assumed, I consider about a fair medium of the stock and acres under tillage of our farmers. The result of this practice, if generally adopted, with a reasonable use of gypsum and clover, I venture to say, would be an increase of at least one fourth of the agricultural produce of the county.

I have taken up so much time in the examination of this subject, that it would be trespassing on your patience to go into an investigation of other manures and composts, of importance to good farming. I will therefore close this subject with a few general remarks; and take a cursory view of some other branches of husbandry, coming within the prescribed limits of this address.

Stiff clays may be much benefitted by sand, lime, ashes, or any earth which tends to render them less cohesive, more retentive of moisture, and pervious to heat, air, and the roots of plants. Clay improves a sand soil, by rendering it more compact, and less liable to the effects of drought. Lime is also applied with advantage to peety and boggy lands, when drained, and to soils abounding in brake and fern roots, &c. In the former it causes a decomposition of the vegetable matter, of which these lands contain an excess, and renders that which was inert and unsoluble, active food for vegetation. Green crops, whether of grass, grain or vegetables ploughed under, afford a good manure. Clover, on account of its tap roots, and the sod of old pasture and meadow grounds, are the best. If lime is spread on the old sod of clays, before it is ploughed under, it greatly facilitates decomposition, and improves the texture of the soil. Green crops should be thoroughly ploughed under, and, if practicable, a crop taken on the first ploughing. By cross ploughing before the sod is thoroughly rotted, the vegetable matter is exposed to the im-

Pov. rishing influence of the winds and sun, and its alue materially impaired.

While various opinions continue to be entertained, as to the manner in which gypsum, or plaster of Paris, operates upon vegetation, the fact of its being a cheap and highly beneficial application, to certain crops, & on certain soils, is now universally admitted. Its effects upon the clovers are wonderful; and by the application of these alone, poor and exhausted soils have been made to produce abundant crops, and whole districts to double their agricultural products. As a general rule, gypsum benefits all broad leaved plants, such as corn, potatoes, peas, and most of the grasses; but it is a question not satisfactorily solved, whether its application to small grains has any direct beneficial effect. It may be advantageously applied on all soils in this county, except to those that are habitually wet, and to stiff clay; and even on the latter of these I have known it do well where the surface was undulating. On grasses, the best time to sow it is when vegetation starts in the spring, at the rate of one bushel per acre, and the same quantity immediately after the hay is taken from the ground. A greater dressing seldom proves beneficial, and is sometimes of disservice. On corn and potatoes, it is generally applied to the growing plant; though, on the former, Judge Peters and Mr Taylor concur in recommending, as a preferable mode, that it be sown broad cast, at the rate of one bushel per acre, previous to the last ploughing.

[TO BE CONTINUED.]

Editorial Correspondence.

Broad Tailed Sheep—Luzerne, Orchard Grass, &c.

BELMONT, Nov. 13th, 1821.

DEAR SIR,

Your letter of the 9th affords to me both pleasure and pain. I am gratified by perceiving a revival of enquiry after the Tunis sheep; and mortified because I cannot tell you where to procure them. I had them in plenty, when few were sensible of their superior value; and now when I have them not, I have many applications for them. There are some, much deteriorated, in my little flock; and others in the neighborhood I would not recommend. Mr. Jefferys of North Carolina some years ago mentioned to me that in his vicinity there was a fine flock of the Tunis sheep; and probably in South Carolina they may have preserved the stock I sent them. What a friend to our country would *he* be who would import some of these valuable animals! All my efforts have been abortive, although I have made several attempts. *Now a reasonable* spirit is reviving for propagating sheep, no breed would be more profitable, as the *Farmer's* sheep; the fleece being far superior to that of the common sheep, and the carcase far better than that of *any* other. Every thing I have said in relation to them, is literally true. The Merino madness overwhelmed all desire for other breeds; and even now the English sheep are most unwittingly preferred. The Barbary coast sheep are generally bad, or at least inferior. The *mountain* sheep must be procured.

I see in one of your papers an account of the 2d or 3d cutting of *Luzerne*, producing Ptyalism in horses. This I knew to be the case. But no such effect is produced by the Orchard grass; which I have cultivated for a period of nearly 50 years; having been the first person who introduced it here. The price of the seed is most extravagant, and forbidding to its culture. Yet if a farmer would raise it for his own use, or even for sale, he would make more profit than wheat would afford. Thirty to fifty bushels are produced by a good acre. What is sold is half husk or chaff. A good bushel should weigh from 18 to 24 pounds—whereas that sold in the shops weighs 13, 14 and 15 only. I sow a bushel and an half per acre generally with my wheat or rye. In the winter or early spring I sow clover seed on the grain. These grasses are simultaneously fit for the scythe; and when the clover fails, the orchard grass continues in vigour as many years as you please. One dollar per bushel would be an ample price for it.

Yours very sincerely,

RICHARD PETERS.

J. S. SKINNER. Esq.

Near Newcastle, Delaware.

SIR,

While searching for papers, I came across the enclosed—perhaps its publication in your Journal, may influence some enterprizing merchant to attempt to procure these immense Lincoln sheep, not one of which I am convinced has ever been in the United States. The laws of England are indeed very rigid against the exportation of Rams and Ewes, but while that nation is ransacking the world to improve their stock, why should our hands be tied? We know the penalties and must guard against them.

They may very easily be taken to the Dutch coasts, or to France, and re-shipped to this country.

Your obedient servant,

From the Democratic Press.

A Clothier.

HEAVY FLEECED SHEEP.

It is stated in "*Arthur Young's Lincolnshire,*" that Mr. Graves, of that county, had a true Lincoln sheep, which clipped *twenty three* pounds of wool, the first year, and was sold in the London market, the following Christmas, weighing 40 lbs. the quarter.

This gentleman (Mr. Graves) sold in 1796, no less than 3568 tods of wool, weighing each 28 pounds, 140,948 pounds.

They feed often on oil cakes, often on turnips, and sometimes on a plant called the *Saw thistle*, which grows on rich lands. Nothing makes wool grow so fast as oil cake.

It is also stated that the sheep around Boston in Lincolnshire [Great Britain] yield, on an average, 14 pounds of wool per annum, fit for kerseys, blankets, carpets, shalloons, &c.

A lady of Spalding, in the same county, spun one pound of this wool into 168,000 yards or 95 miles of yarn.——The apprentices spin it to the length of 13,440 yards to the pound, or 8 miles. Hence we may learn the profits this country can make on the long wooled or heavy fleeced sheep by combing the wool and making '*Worsted*' stuffs, such as shalloons, durants, moreens, bombazetts, &c.

They use *a machine* to comb wool called a '*Big Ben.*'

The price of a fat Lincolnshire sheep after the third sheering, is 38s. to 72s. sterling, or 8 dollars and 44 cents to 16 dollars for the sheep.

The Lincoln sheep are preferred to any other by the English *Marsh* Graziers for hardiness and *for profit.*

Heavy sheep have been found to eat less in proportion to weight, on some experiments, than lighter sheep.

The Leicester breed of sheep in England yield in Lincolnshire 6½ to 9½ pounds of wool. It is finer than that of the Lincoln breed. The carcase is not so heavy; but so good lands are not required for this breed.

The Herefordshire, English sheep, yield very fine wool: but only 2 to 3 pounds to the fleece. The merino sheep yield finer and much more wool, and our dry climate particularly well suits this valuable breed.

Extraordinary Calves.

WEIGHT—TREATMENT, &c.

East Windsor, October 22, 1821.

SIR,

Inclosed I send you the Connecticut Courant containing the reports of the several committees of our agricultural society. My father was the successful candidate for the best improved farm at the least expense.* My brother for the

*The viewing committee of the Harford county Agricultural Society, respectfully report:

That in discharge of the duties assigned them by the society, they have examined during the present season, seven farms. Some remarks upon each of them, with the names of the competitors, will be offered to the society, in the order in which they were examined.

The farm of Mr. John Watson, of East Windsor, contains exclusive of woodland, about 170 acres. The greater part, when it came to the possession of the present owner, was of the very worst quality. In some places were sand blows, in others a light and thin soil, elevated but one degree above the former; and in others considerable tracts scoured by springs or drenched by surface water, and producing bushes, ferns, and rushes. In reclaiming this farm, practical skill has been happily guided by scientific views, and the utility of systematic principles, in connection with that sagacity, which can perceive the proper time and manner of applying them, has been clearly exemplified. Strict calculations of profit and loss seem to have directed the proprietor in all his farming operations. No improvement, which would cost more than it would be worth, has been admitted; and few, which would be profitable, have been neglected. The fences upon this farm are excellent, the drainage effectual, and persevering efforts to eradicate noxious weeds and bushes have been very successful. This farm is, principally, though by no means exclusively, stocked with sheep; and their support is the leading object in the cultivation of the grounds.

best stud horse and for the best calf—the calf was from Mr. Williams' bull Denton, and was as fine an animal as I have ever seen. He has three calves from him. I have had three, but lost my two best at 12 weeks old.

I had a bull calf, weighed at one day old 97 pounds—at thirty days old 184 pounds—at 60 days 277 pounds—and at twelve weeks old after five days sickness, his greatest weight after his kidneys were out 199 pounds. I am not acquainted with the diseases of calves and have never heard of the death of calves of the age of mine, by sickness—one was kept upon the milk of one cow which he took from her twice a day, and had what hay he would eat, but no grain—the other was weaned, but took the milk of one cow, and after two months old a little meal. Yours with respect,

HENRY WATSON.

THE PUMP.

The common objection to the Pump is, that it makes the water taste of the wood; which I think a very material one, not only because it gives the water such a disagreeable taste, but it becomes a question whether it is entirely wholesome, and with me a very material one; because the disagreeable taste of the water in many instances prevents the use of it as freely as it should and otherwise would be. And again, it is an inducement for some, perhaps many, to mix some stimulus with it, in order to avoid the disagreeable taste of the wood, which in many cases, has produced the most ruinous consequence, drunkenness—the most dreadful evil that exists among men. I will now leave this subject for others to speculate on, and propose an improvement.

Make the first joint of any kind of stone that can be bored and worked so as to answer, whether it be one foot long or ten—it would be best no doubt if it could be got long enough to come above the standing water: for I presume that it is the wood standing in the water that gives the taste—not the water standing in the wood, or when this was drawn out the water would be pure. I think it probable that in many cases it is a long time, perhaps months before there is a change effected in the water that stood in the well, of course the wood standing in it must become very much affected—but if the joint of stone cannot be got long enough to come above the standing water, have cylinders made of potter's or stone ware, the stone would be best, and when the stock of wood is set in the stone joint, then enclose the wood with a joint of the cylinder. There should be a space of two or three inches all round between the cylinder and the wood, which fill in nicely with good clay mortar, then set on another joint of the cylinder, fill it in with the mortar, and so repeat the process until entirely above the standing water, and I believe this would be found to be a complete remedy.

If thee thinks this worth a place, and any should think it worth an experiment and would be so kind as to detail the result I shall be highly gratified—my part, I consider done.

Thine with much regard,

GIDEON DAVIS.

George-town, D. C. 11th mo. 1821.

Meridian Hill, Nov. 4th, 1821.

DEAR SIR,

I send you enclosed a pod of Cotton with the seed, from Manilla, which came in the Congress frigate.

I have never seen any thing of the Cotton kind so beautiful, and it is possible the cultivation of it may be introduced into this country to advantage.

Will you have the goodness to distribute the seed with such observations as to the quality of the cotton as you may think proper.*

D. PORTER.

J. S. Skinner, Esq.

* The cotton was distinguished by a softness to the touch resembling silk—but of short staple—The pod divides into *two* pieces and is in other respects very much like that of our silk-weed or wild cotton. The seed are in size and appearance like the *Ochre*-seed.—They have been sent to two eminent planters in the South.

From the London Farmer's Journal.

A MATCH OF SIXTY MILES A-DAY FOR TEN DAYS.

This undertaking was completed by Mr. Coleman, near Honiton, in Devonshire, on Thursday, the 30th ult.; and, considering the heat of the last few days, it stands equal to any thing on pedestrian record. Mr. Coleman bent his course through Huntingdon to Ferry-bridge, Yorkshire; and from thence across the country through Worcestershire, Oxfordshire, and into the Bath road at Devizes, from thence through the lower part of Somerset and Wiltshire, till the six hundred miles were completed as stated. It is extraordinary that he felt but little fatigue after the fourth day. He generally did from five to six miles an hour when travelling, which generally secured him rest. The wager was for 200 guineas only.

A young man named West, of Ash, near Wingham, in Kent, was backed, a few days ago, to run a quarter of a mile in one minute, and performed the task three seconds within the time. A few days before he run ten miles within the hour, for a trifling wager, and did the first eight miles in forty-five minutes.

A man named Jonathan, was backed for ten guineas, to run ten miles within one hour on the same ground. He did the first two miles and a half in 14 minutes 50 seconds. He continued to do each mile within his time, and won the match by one minute and three seconds.

A match to trot two horses 30 miles in two hours, was decided on Tuesday on the Royston-road. A gentleman in the vicinity of Royston, of the name of Codrington, undertook to perform this task at two days' notice, and to ride 12 stone. He did 15 miles and a half in the first hour, and turned round twice agreeable to articles. The other horse did the other 14 miles and a half cleverly in 56 minutes. The rider had most of fatigue.

PIDGEON MATCH.—A sweepstakes match took place on Monday, at Totteridge, between two elevens, at 15 birds each, 21 yards from the trap. The stake was 150 guineas aside, and was decided as follow:

	killed		killed
Mr. Herne	14	Mr. Howe	15
Gee	13	Jenkins	14
Bartleman	12	Hall	12
Jones	11	Captain Smith	11
Codrington	11	Jones	11
Mellish	10	Mr. R. Hall	11
Armstrong	9	Marshall	10
Smith	9	Mellish	9
Kent	8	Hart	8
Forrest	8	Coffin	8
Frost	7	Maule	6
	112		115

The winners were from Herts and Bucks chiefly, and losers from Oxon and Bedfordshire. The stake was shot for amongst the winners, on the following day, in four prizes of 50, 40, 35, and 25, the worst shots receiving dead birds to start with. The prizes were as follows:

	Killed.	Dead Birds allowed.		Killed.	Dead Birds allowed.
Mr. Jones	14	0	Mr. Coffin	10	1
Mellish	13	1	Howe	10	0
Smith	13	0	Marshall	9	1
Jenkins	11	0	Hall	8	0
Hall	10	0	Hart	8	2
Maule	10	2			

Mr. Howe killed his whole 15 birds on the preceding day. On shooting off the tie for the second prize, Mr. Mellish won it by killing four birds successively.

GROUSE SHOOTING.—Bumper Castle, the favourite shooting-box of the late Marquis of Granby, and the present Duke of Rutland, has this year assumed its original appearance, with abundant harvest for the sportsman. The present occupiers of these Moors, &c. (John Chaworth, Esq. and Edmund Turton, Esq.) began their deadly warfare on the 13th of August, and on the 27th no less than six hundred and sixty-four birds had been bagged by these two gentlemen.

Mr. W. Friend, of Willington, gamekeeper to Charles Lyon, Esq. has now in his possession a patridge, which, far from resembling the generality of that species, is completely yellow. It is kept, having become quite domesticated, in a cage with one of the usual colour. It was caught about a month ago, and has since been seen by many sportsmen, by all of whom it has been greatly admired for its singularity.

The Rattle Snake.

TO THE EDITOR OF THE GEORGIAN.

Mr. Robertson—I have recently perused an article in the National Intelligencer, purporting to be a communication from *A. Ramsay*, M. D. to the President and Members of the New Hampshire Medical Society. In this communication the writer gives a description of the effects of the bite of a rattle-snake, as experienced by *himself*; but as these effects differ in many particulars from those which I have witnessed, I am unwilling it should remain before the public without such remarks, as I think are necessary to elicit the truth; in doing this, I shall speak from my own observations, and go no further than the interest of the subject demands.

Dr. R. states, that "*he felt no pain on the*

infliction of the blow ;" but that, on looking to his finger where he had been struck, an orifice was discovered to *bleed copiously ;* that he observed about an inch from the bleeding point, a *white speck*, exactly resembling the puncture from a nettle ; that in a few days, the morbid symptoms seemed to subside ; and that every Wednesday, (the day on which the wound was received,) for four weeks, a *periodical relapse* took place, which lasted two days, &c.

Whether the Doctor wishes to play upon the credulity of his readers, or was wounded by some other snake, I know not, but I have seen and heard of many cases of the bite of a rattle snake, and the effects were invariably the same, and different from those above stated. Unless proper antidotes were applied, death always followed in twelve hours. When these were used, the most speedy cure always followed, and no periodical return of the symptoms ever was observed. The following case, which I detail, with the treatment, came within my own immediate observation :

A girl, about 10 years of age, trod upon, and was bit by a rattle-snake on the top of the foot. She complained immediately of *extreme pain.* Upon removing her stocking, (which could not have been more than three minutes after the infliction of the wound,) *four small punctures* appeared on the skin, which were filled with a thick slimy substance, but *no blood*, and the skin swelled to the height of half an inch , the swelling increased rapidly, and she stated that she could feel the pain slowly advancing up the leg. Her foot was instantly covered with earth, about three inches deep, and water poured over it ; a bandage was also tied round the leg ; but the former became so painful an application, that the earth was removed. She complained of heat, and drank freely of water ; but did not perspire until 20 minutes had elapsed from the infliction of the wound. A portion of the herb called by the Indians the *rattle-snakes' masterpiece,** was then procured, the root of which was applied to the wound and given internally which took effect in about thirty minutes, and was followed by a languor and sleep. She remained in this state nearly three hours, and arose almost free from pain, and immediately asked for more of the preparation of the above mentioned root. She rested well the following night, and the next morning complained of nothing but a small degree of soreness in her foot and leg. The above application was continued till the fourth day, when she was completely recovered. I afterwards saw her in 1818, when she was 19 years of age, and she had never, as she informed me, felt the least pain or relapse since her recovery on the fourth day after the occurrence.

* The " Rattle-Snake's Master-Piece" (as it is called by the Indians) is a plant common in the upper counties of Georgia. It has a leaf resembling, in shape and colour, that of the aloe, except the edge, which is smooth, and about three inches long, and, when broken, a slimy substance adheres to each piece until an inch apart. It has one root about the size of a man's thumb, to which the leaves, four or five in number, are attached, and from which there are four smaller roots which shoot horizontally. The principal root is not more than one inch in length, and perfectly blunt at the extremity.

A favorite dog, severely bitten, and unable to move more than 100 yards, expressed a sensation of severe pain, and was cured by the same root, in three days, and never experienced any return of the disease.

Every one in the least acquainted with the rattle-snake, knows that the wound is given with from two to four fangs, which are curved, and by which the venom is ejected from a bag situated in the jaw. The rattle-snake never bites till attacked, and will rather shun than seek a conflict. Providence has provided that in every situation where the rattle-snake is found, an antidote is found with it. To this the reptile, after having given the bite, flies ; for the same blow which inflicts the deadly wound, also creates in the snake a sickness, for which it immediately seeks relief in the plant. At times, however, they are known to bite without this effect being produced ; but when the venom is ejected, it invariably follows.

A GEORGIAN.

From the Providence R. I. Journal.

According to the most judicious calculations, the amount of raw cotton consumed by the mills which receive their supplies from the town of Providence and return their goods thither is about 590 bales a week, or nearly at the rate of 31,000 annually. If the whole mill manufacture of cotton in the United States, be four times as much, which is not improbable, the value of the raw cotton worked up in the domestic market, at 50 dollars a bale, is $6,200,000, or one quarter of that of the whole crop. Is it of no consequence to the southern planting interest, that this home market for one of its great staples should be protected and extended ? By increasing the duties on fine goods, many mills which are now idle, in different parts of the country, would be soon employed in the finer manufactures, and thus greatly increase the call for sea-island cottons. When once established in the manufacture of fine goods, they would be enabled, like those which manufacture coarse goods, to undersell the foreign manufactures.

From the New York Journal.

NATIONAL INDUSTRY.

Mathew Carey, Esq. of Philadelphia, has issued proposals for publishing by subscription, a collection of " *Essays on the necessity, duty, and advantages of affording adequate legislative protection to domestic manufactures, and on the pernicious consequences of the contrary policy, as exemplified in Spain, Portugal, the United States, &c.* These essays contain a great mass of statistical information and facts relating to political economy and the policy of nations ; and a collection of the maxims of the greatest statesmen that have appeared on the political theatre of Europe, and in our own country. They relate to agriculture, manufactures, and commerce, and will be found well worthy the attention of those who desire information upon these subjects. The author has devoted much time to the great questions he discusses, and has evinced an ardent attachment to the cause of American manufactures, in the confident belief that in their establishment on a permanent basis, the safety, prosperity, and real independence of the nation are intimately connected. The work will contain above 500 pages, and be furnished to subscribers at 3 dollars bound, and 2 dollars 50 cts. in boards.

☞ Subscriptions received at this office.

(FROM THE LONDON FARMER'S JOURNAL.)

AN ACCOUNT

Of the Quantity of Sheep and Lamb Wool imported into Great Britain, between the 5th January, 1800, and the 5th January, 1821, distinguishing the amount in each year.

Years ending 5th Jan.	*Produce of Foreign countries.*	*Produce of Ireland, Isles of Guernsey, Jersey, Man.*	*Total.*
	lb.	lb.	lb.
1801 —	8,609,384	5,900	8,615,284
1802 —	7,369,993	17,114	7,387,107
1803 —	7,622,970	78,548	7,701,518
1804 —	5,889,834	115,958	6,005,792
1805 —	7,909,551	240,042	8,151,593
1806 —	8,079,914½	462,012	8,541,976½
1807 —	6,763,622	370,371	7,133,993
1808 —	11,473,661	295,265	11,768,926
1809 —	2,279,956	73,769	2,353,725
1810 —	6,782,614	63,319	6,845,933
1811 —	10,931,667	4,557	10,936,224
1812 —	4,732,646	7,326	4,739 972
1813 —	6,992,084	22,833	7,014,917
1814 —	Records destroyed by Fire.		
1815 —	15.490,134	222,383	15,712,517
1816 —	13,634,520	1,357,185	14,991,705
1817 —	7,517,447	600,377	8,117,864
1818 —	14,051 788	664,055	14,715 843
1819 —	24,720,139	1,685,347	26,405.486
1820 —	16,094,999	95,344	16,190,343
1821 —	9,770,103	273,613	10,043,746

WOOL.—The demand for English wools generally is rather languid for this period of the year ; the staplers and manufacturers only purchasing to supply their regular demand : it is however, very probable, as the season advances that the prices of all sorts will gradually get up. The clip of the country is known to be generally very short, owing to the cold and protracted summer previous to the shearing, and the short supply of food last winter. We should think that the average defalcation in weight is from ten to fifteen per cent. from last year, and of course much greater from the year 1819, in which year there was the heaviest clip, ever remembered. The long wools this year are very weak in the staple, and the short wools smaller in the hair than usual.

By a statement from the Board of Excise, ordered by the House of Commons to be printed in May last, it appears that the increase of hop plantations, in the parishes or districts of Sussex, for the last fourteen years, has been from about 5,400 to 9,500 acres.—From the same source we find that the number of acres of land under hop cultivation, in the Canterbury district, was, in 1807, 6151 acres ; in 1820, 8,963 acres.

On adapting Plants to the Soil, and not the Soil to the Plants.

Vegetables will not grow in *pure* earth, or *pure* water ; some plants are so organized as to require only mechanical support from the soil, extracting their nourishment from the atmosphere by means of their leaves ; whilst others,

from their roots, depend in a greater degree on the soil for their support. Although many plants will grow in different soils, yet they have all their favourite ground; and it is more easy to accommodate the plant to the soil, than to adapt the soil to the plant. By knowing, therefore, what sort of plant the farmer is going to put in, he may of course be regulated with respect to the quantity and species of manure required, the aspect wanted, and the degree of humidity and dryness requisite for the plant. All plants came originally from a peculiar earth; either from clay, sand, gravel, chalk, or loams formed from a mixture of some of these, or from a wet or dry soil; and although many plants will grow indifferently in several species of earth, yet they have all their favourite ground, —*that* which they evidently prefer. Now to make the soil fit for the plant is certainly a very expensive thing; but to adapt the plant to the soil is not only an easy expeditious mode, but one which requires infinitely less assistance in dresssing, labour, seed, and care of every kind. It is true that all cultivated plants demand some manure, because nature gives not *enough* salt and oil, in any earth, to do without some assistance of this kind: but the plant that is natural to the soil requires infinitely less than that which is adverse to it; and may therefore be cultivated at a quarter of the expense. Now nature is so bountiful, that there is scarce a plant necessary to the food of man and animals, that, if we choose to seek it with care, has not *one peculiar sort* calculated for every soil. *Clovers* have so great a variety, that there are species adapted to every soil; and sowing them out of the kind of soil to which they are congenial is nugatory and ruinous. And this is often the occasion why they are said to be short-lived, and to fail. It is so with *wheats*, and all other agricultural plants. Nature has been equally bountiful in most other plants peculiarly adapted to agriculture; and in which there are quite as many species fitted for poor land, as for rich ones; and if planted in their own soils, give an infinitely greater return, and are not subject to those dreadful disorders but too common to plants placed in improper grounds. On examining extraordinary crops, it has been actually proved that they were owing to putting the plant into its congenial soil; and where crops have been bad, though manure and pains were not spared, the plant has been found to have been placed in a soil unnatural to it. A plant accustomed to poor soil, placed in a good one, *rots*; while the one that prefers a *rich* loam, is starved in a *poor one*. Manuring highly does not alter the nature of things; and is often the cause of innumerable failures. *Botanists*, who attempt bringing foreign plants, often fail, from the omission of placing the plant in the kind of earth in which it naturally grew. *Peas* and *vetches* will grow luxuriantly, where other plants entirely fail. *Trees* planted in too rich soil, and particularly in that artificially so made, and especially with dung, most commonly fail ultimately, though at first they may appear vigorous. And thus it will be with all plants endeavoured to be forced out of their natural soil. Farmers need not be professed *Botanists* to enable them to judge for themselves. There are but ten or twelve plants used in agriculture; and of each of these there are varieties, calculated for every kind of soil a farmer can occupy. It will, therefore, be easy to suit them respectively to his land; and thereby save the fruitless expense, and unavailing toil of forcing, against nature, a plant to grow out of the kind of soil for which it was, in its habits and organization, originally formed.

AN ACCOUNT

Of a remarkable Tree in the state of Ohio.

"On the land of Abraham Miller, in the township of Seal, county of Sciota, in this state, there is a forked hollowed sycamore tree which measures on the inside twenty one feet in diameter, and more than ninety feet in circumference, tapering from the base upwards, so that at the height of five feet it measures only 42 feet. The opening of the cavity at the bottom is 10 feet wide, and 7 at the height of five feet, terminating at the height of 9½ feet. The fork is about 8 feet from the ground.—One of the branches is dead, and broken off about 20 feet high; the other is green and thrifty.

The spacious cavity attracted the attention of the people in the neighborhood; 14 of whom assembled, on the 5th day of June, 1808, on the spot, and 13 of them advanced on horseback into the trunk, and at the same time, sat there with perfect ease. The other, being on a skittish horse, did not venture in; but there was room for two more to be perfectly secure from a falling shower of rain."

POETRY.

FROM THE ALBANY PLOUGH BOY.

THE FARMER.

All the toils of summer o'er,
Peace and plenty round his door,
Who on earth so blest and free,
As the Farmer?—Like the bee,
All the sweets of life are his—
Large and full his cup of bliss—
Who can envy thrones to kings,
When the Plough such treasure brings.

See his works with profit crown'd—
Barns, with hay stacks huddled round,
Like a family whom fear
Draws within a circle near;—
Stately steeds and cattle neat,
Cribs of corn and mows of wheat.
Thickly crowded is his fold—
Harmless sheep and lambs behold,
Like the Christian 'midst the din
Of a noisy world of sin—
Fowl oviparous cackling sound,
Pois'd with one foot on the ground,
Meet their master as he comes,
Cluck their wants, and shake their plumes.
When at midnight all is still
Hear his geese with voices shrill,
At the silliest thought of harm,
Raise the tocsin of alarm;
While from the barn yard round,
Echoes back the streaming sound.

See the lofty turkey cock,
Monarch of the feather'd flock,
Like a haughty potentate,
Strutting round the yard of state,
Filled with anger fierce and dread,
At the sight of daring red,
Swell'd and gobbling as he goes,
Dire destruction on his foes:
But, like other tyrants, he
Soon will lose his head, you'll see.

Ere the morn unlocks her doors,
Whence a stream of day light pours,
Ere the bacchanalian goes
From his cups to seek repose,
Here the game cock's clarion peal,
Breaking sleep's mysterious seal,
Like a summons from the skies,
Calling mortals to arise:
While each faithful centinel
Answers aloud that "all is well."
Industry obeys the call,
Rises, hastens to the stall,
And replenishes with food,
All his stock and all his brood,
Who around him gladly fly
To a bountiful supply.
Back the husbandman returns,
Where his fire now briskly burns,
Where the partner of his joys—
Rosy girls and healthy boys,
Kneeling with him round the chairs,
Send to heaven their matin prayers:
Thus the year with him begins,
Thus the race to heaven he wins.

THE FARMER.

BALTIMORE, FRIDAY, NOVEMBER 23, 1821.

PRICES CURRENT.

Flour from the wagons selling this morning (Thursday) for $6 50—Whiskey, from do. 35 cts including bbl.—Red Wheat, 140 a 141—White, do 145 a 147—Corn, 63 a 65—Yellow, do. 65 a 66—Rye, 65 a 68—Oats, 4 a 35—Other articles same as last report.

Virginia TOBACCO—No sales.—Maryland, do. very dull.

General Agency Office—

☞ AND AGENT IN NEW YORK FOR THE AMERICAN FARMER.

WILLIAM A. COLMAN,

At No. 45, William-Street, New-York,

Is willing to undertake to collect debts in any part of the country—to procure subscribers to new works—to purchase and sell goods—and generally, to transact every kind of business which may be intrusted to him. He has been for many years extensively engaged in the Agency business, and he flatters himself that, as heretofore, it will be in his power to give general satisfaction. Any commands in the way of his profession, addressed to him as above, will meet with *personal* and *prompt* attention.

☞ In addition to the Agencies already received from many of the Editors of papers in this country, he has authority from J. S. SKINNER, to receive subscriptions to the AMERICAN FARMER—Specimens of this work have been left at his office, for the inspection of those who may wish to subscribe. The *third* Edition of the first and second volumes is now re-printing, and will be completed in a few weeks—Copies of which may then be had as above.

ALDERNEY.

A remarkably fine Alderney Female Calf, four weeks old, warranted genuine, and from the largest Cow imported by Mr. Creighton, is offered for sale.

Apply to the

EDITOR.

☞ YOUNG MULES.

FOR SALE, Six Young Mules—five of them three years old; the other two years old. They are well grown, and perfectly sound—and will be sold low on application to the Editor of this paper.